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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/995,052	11/27/2001	Roger Cook	065424/9015	9713
23585	7590	03/10/2005	EXAMINER	
MICHAEL BEST & FRIEDRICH LLP 3773 CORPORATE PARKWAY SUITE 360 CENTER VALLEY, PA 18034-8217			PHAM, LEDA T	
			ART UNIT	PAPER NUMBER
			2834	

DATE MAILED: 03/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/995,052

Applicant(s)

COOK, ROGER

Examiner

Leda T. Pham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-7,10,11 and 13-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-7,10,11 and 13-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 November 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/31/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This office action is in response to Amendment filed on 11/29/04.
2. Claims 1, 3 – 7, 10 – 11, and 13 – 17 are presented for examination. Claims 2, 8 – 9, 12 are canceled.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 5 – 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Noel et al. (U.S. Patent No. 4,547,135) in view of Grady (U.S. Patent No. 5,096,389).

Referring to claim 1, Noel teaches a compressor and driving motor assembly, in which the motor (2) comprises a rotor (17) and a stator (18) assembly, and the compressor (1) comprises a main body (7) supporting first and second interengaged compressor rotors (4, 5), and a substantially horizontal drive shaft having first and second portions (3 and 16), wherein one of the first and second compressor rotors is mounted on the drive shaft first portion (3) and the motor rotor is mounted directly on the drive shaft second portion (16), the drive shaft first portion being vertically supported by the compressor main body and the drive shaft second portion is free of vertical support to provide cantilever support of the motor rotor (see abstract), and wherein the drive shaft drives the compressor rotor mounted thereon (3) and the

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interengagement between the first and second compressor rotors (figure 1) drives the other compressor rotor (4, 5). However, Noel does not teach the compressor is a rotary screw air compressor.

Grady teaches in his invention one of the pumps is a rotary screw air compressor (36) for compressing air in combinative with chemically treated with water to form foam for extinguishing fires.

Thus, it would have been obvious to one having skill in the art at the time invention was made to using the motor pump as a rotary screw air compressor as taught by Grady. Doing so would compress air to form foam in a compressor device. Furthermore, a motor pump unit with screw rotors is well-known in the art for use in a vacuum pump, air compressor, water or oil pump or any of a variety of fluid media to regulate the pressure of a fluid passing through.

Referring to claim 5, Noel teaches the assembly in which the compressor (1) has a housing (the part outside the compressor 1), and the stator assembly (18) is connected to the housing of the compressor (through screws 19).

Referring to claim 6, Noel teaches the assembly in which the stator assembly (18) is directly connected to the housing (see figure).

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Noel and Grady, further in view of Luneau (U.S. Patent No. 4,079,278).

Referring to claim 3, the combination of Noel and Grady substantially teaches the claimed invention, except for the added limitation of the driving motor being a hybrid permanent motor providing an induction mode and a permanent magnet mode.

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Luneau teaches a Hybrid field permanent magnet motor that provides an induction mode and a permanent magnet mode for generating intended high field strength to accomplish commutation at higher horsepower.

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a motor with a hybrid permanent motor as taught by Luneau. Doing so would provide a motor with intended high field strength to accomplish commutation at higher horsepower.

6. Claims 4, 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Noel and Grady as applied to claims 1, 5 above, and further in view of Hartog (U.S. Patent No 5,246,349).

Referring to claim 4, the combination of Noel and Grady teaches the claimed invention, except for the added limitation of the motor rotor have a central longitudinal aperture fit to a corresponding tapered portion of the drive shaft second portion.

Hartog teaches a variable reluctance electric motor driven vacuum pump (figure 1) with the motor rotor have a central longitudinal aperture configured to fit to a corresponding tapered portion of the drive shaft second portion (20) for securing the shaft in the motor rotor.

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a motor rotor with a central longitudinal aperture configured to fit to a tapered portion as taught by Hartog. Doing so would secure the shaft in the motor rotor.

Referring to claim 7, Hartog teaches the assembly in which the stator assembly is connected to the housing by way of an adapter flange (14, figure 1).

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7. Claims 10 - 11, 14, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hartog in view of Luneau.

Referring to claim 10, Hartog teaches the claimed invention, except for the added limitation of the driving motor being a hybrid permanent motor providing an induction mode and a permanent magnet mode.

Luneau teaches a Hybrid field permanent magnet motor that provides an induction mode and a permanent magnet mode for generating intended high field strength to accomplish commutation at higher horsepower.

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Noel's motor with a hybrid permanent motor as taught by Luneau. Doing so would provide a motor with intended high field strength to accomplish commutation at higher horsepower.

Referring to claim 11, Hartog teaches the assembly in which the compressor is an air compressor (figure 1).

Referring to claim 14, Hartog teaches the assembly in which the motor is a variable speed motor (variable speed).

Referring to claim 17, Hartog teaches the assembly in which the motor (10) comprises a motor rotor (18), which is mounted directly on to a drive shaft (20) extending from a compressor rotor (30) of the compressor (12).

8. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Hartog and Luneau as applied to claim 10 above, and further in view of Kopko (U.S. Patent No. 5,947,854).

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Referring to claim 13, the combination of Hartog and Luneau teaches the claimed invention, except for the added limitation of the motor is a fixed speed motor.

Kopko teaches a motor for driving a compressor with a fixed speed motor type for increasing the speed of the compressor (see abstract, the primary motor is run at constant speed).

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the fixed speed motor type as taught by Kopko for driving the compressor. Doing so would increase the speed of the compressor.

9. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Hartog and Luneau as applied to claim 10 above, and further in view of Schibbye (U.S. Patent No. 3,848,422).

Referring to claim 15, the combination of Hartog and Luneau teaches the claimed invention, except for the added limitation of the compressor is oil-flooded type.

Schibbye teaches a device having a compressor with oil-flooded type for lubricating, sealing, and cooling the device.

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the oil-flooded type compressor as taught by Schibbye for lubricating, sealing, and cooling the device.

10. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Hartog and Luneau as applied to claim 10 above, and further in view of Suzuki (U.S. Patent No. 5,413,467).

Referring to claim 16, the combination of Hartog and Luneau teaches the claimed invention, except for the added limitation of the compressor is oil-free type.

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Suzuki teaches a device having a compressor with oil-free type for producing a lean compressed air free of oil mist.

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the oil-free type compressor as taught by Suzuki. Doing so would produce a clean compressed air free of oil mist.

Response to Arguments

11. Applicant's arguments, "Noel et al. does not teach or suggest a rotary screw compressor..." on last paragraph of page 6 in Remarks/Arguments section, filed 11/29/04, with respect to the rejection(s) of claim(s) 1 under 35 U.S.C. §102 have been fully considered and are persuasive. However, upon further consideration, a new ground(s) of rejection regarding claim 1 is made in view of the combination of Noel and Grady.

12. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

13. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge

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generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Luneau substantially teaches in his invention that the hybrid field permanent magnet motor for generating intended high field strength to accomplish commutation at higher horsepower (see abstract).

Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leda T. Pham whose telephone number is (571) 272-2032. The examiner can normally be reached on M-F (8:30-6:00) first Friday Off.

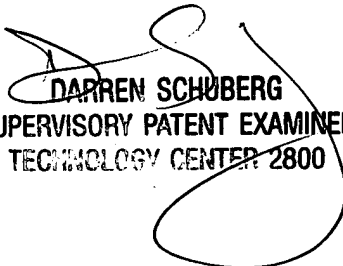
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (571) 272-2044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Leda T. Pham
Examiner
Art Unit 2834

LTP
March 2, 2005


DARREN SCHUBERG
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